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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,426	11/08/2001	Brad R. Lewis	30014200-1006	6022
58328	7590	02/14/2006	EXAMINER	
SONNENSCHN NATH & ROSENTHAL LLP FOR SUN MICROSYSTEMS P.O. BOX 061080 WACKER DRIVE STATION, SEARS TOWER CHICAGO, IL 60606-1080			KANG, INSUN	
			ART UNIT	PAPER NUMBER
			2193	
DATE MAILED: 02/14/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/010,426

Applicant(s)

LEWIS ET AL.

Examiner

Insun Kang

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed 9/20/2005.
2. As per applicant's request, claims 29, 36, 44, 51, and 56 have been amended.

Claims 29-56 are pending in the application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 29-32, 34-39, 41, 44-56 are rejected under 35 U.S.C. 102(e) as being anticipated by Calder et al. (US Pat. 5,963,972) hereafter Calder.

Per claim 29:

Calder discloses:

- generating a graph that represents the data flow program comprising code segments distributed between the blocks of memory (i.e. col. 4 lines 29-35), the graph comprising nodes corresponding to selected ones of the blocks and arcs corresponding to dependency relationships between the nodes (i.e. col. 9 lines 35-56; col. 3 lines 55-62 col); and receiving an optimization command to manipulate the generated graph to improve performance of the data flow program (i.e. col. 12 lines 25-53).

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Per claim 29:

Calder discloses:

-dividing a memory area into blocks and associating each block with at least a portion of the data in memory and with at least one code segment(i.e. col. 4 lines 29-35); generating a graph representation of the data flow program, the graph representation comprising nodes associated with the blocks, and arcs associated with dependencies between the blocks(i.e. col. 9 lines 35-56; col. 3 lines 55-62 col); and performing an optimization command to manipulate the generated graph to improve performance of the data flow program (i.e. col. 12 lines 25-53).

Per claims 30-32, 34-39, 41, 45-50, and 52-55:

See the rejections corresponding to the claims in the previous office action.

Per claim 44, it is the computer-readable version of claim 36, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 36 above.

Per claim 51, it is the system version of claim 29, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 29 above.

Per claim 56, it is the system version of claims 29 and 36, respectively, and is rejected for the same reasons set forth in connection with the rejection of claims 29 and 36 above.

Claim Rejections - 35 USC § 103

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 33, 40, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calder et al. (US Pat. 5,963,972) hereafter Calder as applied to claims 29-32, 34-39, 41, 44-56 above in view of Hamada et al. (US Patent 6,493,863) hereafter Hamada.

Per claims 33, 40, and 43: see the rejections corresponding to the claims in the previous office action.

7. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Calder et al. (US Pat. 5,963,972) hereafter Calder as applied to claims 29-32, 34-39, 41, 44-56 above in view of Kahn et al. (US Patent 6,662,278) hereafter Kahn.

Per claim 42: see the rejection corresponding to the claim in the previous office action.

Response to Arguments

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8. Applicant's arguments filed 9/20/2005 have been fully considered but they are not persuasive.

Per claims 29, 36, 44, 51, and 56:

The Applicant states that:

Calder creates a graph that has nodes and edges. The nodes represent units of instructions of a program and the edges represent execution relationships between the nodes...Thus, unlike Applicant's claimed invention in which graph nodes correspond to blocks of memory, Calder's graph nodes merely correspond to units of instructions – the units of instructions do not correspond to blocks of memory....Instead, the blocks merely contain instructions, which are assigned to cache memory after the graph has already been created.

In response, the claims broadly recite that the data flow program comprising code segments distributed between the blocks of memory and the graph comprising nodes corresponding to selected one s of the blocks. In Calder, the cache memory is partitioned into a plurality of access blocks (col. 4 lines 29-35), the partitioned instruction units are mapped into each blocks of the cache (col. 9 lines 35-56), and the nodes in the flow graph represent the partitioned instruction units (i.e. col. 3 lines 55-62). As each block of the cache memory simply store and therefore represent the partitioned instruction units, it is clear that the nodes correspond to the blocks of the memory that are associated with the instruction units. Further, the flow graph is manipulated by a method such as color, edge weight etc for optimization (col. 4 lines 1-12; col. 12 lines 25-53). Therefore the rejections of claims above are considered proper and maintained. If applicant means anything more, this must be brought out in the claims to further clarify the invention.

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Per claims 30-35, 37-39, 40-43, 45-50, and 52-55:

The applicant states that the claims are allowable as being dependent on the allowable base claims. As shown above, the rejections of the independent claims by Calder are maintained, the argument that claims 30-35, 37-39, 40-43, 45-50, and 52-55 are allowable as being dependent on the allowable base claims is considered moot. Accordingly, the rejections of claims 30-35, 37-39, 40-43, 45-50, and 52-55 are maintained.

Conclusion

9. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-F 7:30-4 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

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